

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A data transfer control device for transferring data among a plurality of nodes that are connected to a bus, said data transfer control device comprising:

a packet shaping circuit which receives~~means for receiving~~ a series of self-identification packets that are transferred from said nodes, and shapes~~shaping~~ said transferred series of said self-identification packets into a packet having a frame made of control information that is used by an upper layer and data that is formed from an assembly of said transferred series of said self-identification packets; and

a write circuit which writes~~means for writing~~ the shaped packet to a storage memory~~means~~.

2. (Currently Amended) The data transfer control device as defined in claim 1, wherein said packet shaping circuit~~means~~ erases error check information within each of said self-identification packets when each of said self-identification packets comprises error check information, and shapes said transferred series of said self-identification packets into a packet having a frame made of data formed from an assembly of said self-identification packets each of which error check information has been erased, and said control information.

3. (Currently Amended) The data transfer control device as defined in claim 2, wherein said packet shaping circuit~~means~~ determines whether or not there is an error in said self-identification packets that are transferred from said nodes, based on said error check information, and appends status information to control information of the packet to indicate whether or not there is an error in said self-identification packets.

4. (Currently Amended) The data transfer control device as defined in claim 1,

wherein said packet shaping circuit~~means~~ appends status information to control information of the packet to indicate whether or not said self-identification packets were received during a self-identification period.

5. (Currently Amended) The data transfer control device as defined in claim 2, wherein said packet shaping circuit~~means~~ appends status information to control information of the packet to indicate whether or not said self-identification packets were received during a self-identification period.

6. (Currently Amended) The data transfer control device as defined in claim 3, wherein said packet shaping circuit~~means~~ appends status information to control information of the packet to indicate whether or not said self-identification packets were received during a self-identification period.

7. (Currently Amended) The data transfer control device as defined in claim 1, further comprising:

a packet division circuit which writes~~means for writing~~ control information of the packet into a control information area of said storage memory~~means~~ and data of the packet into a data area of said storage memory~~means~~, said storage memory~~means~~ being randomly accessible and being divided into the control information area and the data area; and

an appending circuit which appends~~means for appending~~ a data pointer indicating an address of data to be written to said data area, to said control information.

8. (Currently Amended) The data transfer control device as defined in claim 2, further comprising:

a packet division circuit which writes~~means for writing~~ control information of the packet into a control information area of said storage memory~~means~~ and data of the packet into a data area of said storage memory~~means~~, said storage memory~~means~~ being

randomly accessible and being divided into the control information area and the data area;
and

an appending circuit which appends~~means for appending~~ a data pointer
indicating an address of data to be written to said data area, to said control information.

9. (Currently Amended) The data transfer control device as defined in claim 3,
further comprising:

a packet division circuit which writes~~means for writing~~ control information of
the packet into a control information area of said storage memory~~means~~ and data of the
packet into a data area of said storage memory~~means~~, said storage memory~~means~~ being
randomly accessible and being divided into the control information area and the data area;
and

an appending circuit which appends~~means for appending~~ a data pointer
indicating an address of data to be written to said data area, to said control information.

10. (Currently Amended) The data transfer control device as defined in claim 4,
further comprising:

a packet division circuit which writes~~means for writing~~ control information of
the packet into a control information area of said storage memory~~means~~ and data of the
packet into a data area of said storage memory~~means~~, said storage memory~~means~~ being
randomly accessible and being divided into the control information area and the data area;
and

an appending circuit which appends~~means for appending~~ a data pointer
indicating an address of data to be written to said data area, to said control information.

11. (Currently Amended) The data transfer control device as defined in claim 7,
wherein said packet division circuit~~means~~ writes data of the packet obtained
by shaping said series of said self-identification packets into an area within said storage
memory~~means~~ that is dedicated to self-identification packets.

12. (Currently Amended) The data transfer control device as defined in claim 8,
wherein said packet division circuit~~means~~ writes data of the packet obtained
by shaping said series of said self-identification packets into an area within said storage
memory~~means~~ that is dedicated to self-identification packets.

13. (Currently Amended) The data transfer control device as defined in claim 9,
wherein said packet division circuit~~means~~ writes data of the packet obtained
by shaping said series of said self-identification packets into an area within said storage
memory~~means~~ that is dedicated to self-identification packets.

14. (Currently Amended) The data transfer control device as defined in claim 10,
wherein said packet division circuit~~means~~ writes data of the packet obtained
by shaping said series of said self-identification packets into an area within said storage
memory~~means~~ that is dedicated to self-identification packets.

15. (Currently Amended) The data transfer control device as defined in claim 1,
further comprising:
a detecting circuit which detects~~means for detecting~~ whether or not the current
period is a self-identification period, based on status information that has been sent from a
lower layer;
wherein said packet shaping circuit~~means~~ regards a series of packets that have
been transferred in during said self-identification period as self-identification packets, and
shapes said series of said self-identification packets.

16. (Currently Amended) The data transfer control device as defined in claim 2,
further comprising:
a detecting circuit which detects~~means for detecting~~ whether or not the current
period is a self-identification period, based on status information that has been sent from a
lower layer;

wherein said packet shaping circuit~~means~~ regards a series of packets that have been transferred in during said self-identification period as self-identification packets, and shapes said series of said self-identification packets.

17. (Currently Amended) The data transfer control device as defined in claim 3, further comprising:

a detecting circuit which detects~~means for detecting~~ whether or not the current period is a self-identification period, based on status information that has been sent from a lower layer;

wherein said packet shaping circuit~~means~~ regards a series of packets that have been transferred in during said self-identification period as self-identification packets, and shapes said series of said self-identification packets.

18. (Currently Amended) The data transfer control device as defined in claim 4, further comprising:

a detecting circuit which detects~~means for detecting~~ whether or not the current period is a self-identification period, based on status information that has been sent from a lower layer;

wherein said packet shaping circuit~~means~~ regards a series of packets that have been transferred in during said self-identification period as self-identification packets, and shapes said series of said self-identification packets.

19. (Currently Amended) The data transfer control device as defined in claim 7, further comprising:

a detecting circuit which detects~~means for detecting~~ whether or not the current period is a self-identification period, based on status information that has been sent from a lower layer;

wherein said packet shaping circuit~~means~~ regards a series of packets that have been transferred in during said self-identification period as self-identification packets, and shapes said series of said self-identification packets.

20. (Currently Amended) The data transfer control device as defined in claim 11, further comprising:

a detecting circuit which detects~~means for detecting~~ whether or not the current period is a self-identification period, based on status information that has been sent from a lower layer;

wherein said packet shaping circuit~~means~~ regards a series of packets that have been transferred in during said self-identification period as self-identification packets, and shapes said series of said self-identification packets.

21. (Original) The data transfer control device as defined in claim 1, wherein data transfer is performed in accordance with the IEEE 1394 standard.
22. (Original) The data transfer control device as defined in claim 2, wherein data transfer is performed in accordance with the IEEE 1394 standard.
23. (Original) The data transfer control device as defined in claim 3, wherein data transfer is performed in accordance with the IEEE 1394 standard.
24. (Original) The data transfer control device as defined in claim 4, wherein data transfer is performed in accordance with the IEEE 1394 standard.
25. (Original) The data transfer control device as defined in claim 7, wherein data transfer is performed in accordance with the IEEE 1394 standard.
26. (Original) The data transfer control device as defined in claim 11, wherein data transfer is performed in accordance with the IEEE 1394 standard.
27. (Original) The data transfer control device as defined in claim 15, wherein data transfer is performed in accordance with the IEEE 1394 standard.
28. (Previously Presented) Electronic equipment comprising:

a data transfer control device as defined in claim 1;

a device for performing given processing on data that has been received from another node via said data transfer control device and said bus; and

a device for outputting or storing data that has been subjected to said processing.

29. (Previously Presented) Electronic equipment comprising:

a data transfer control device as defined in claim 1;

a device for performing given processing on data that is to be sent to another node via said data transfer control device and said bus; and

a device for fetching data to be subjected to said processing.

30. (New) A data transfer control method for transferring data among a plurality of nodes that are connected to a bus, the method comprising:

receiving a series of self-identification packets that are transferred from said nodes,

shaping said transferred series of said self-identification packets into a packet having a frame made of control information that is used by an upper layer and data that is formed from an assembly of said transferred series of said self-identification packets; and writing the shaped packet to a storage memory.

31. (New) The data transfer control method as defined in claim 30, further comprising:

erasing error check information within each of said self-identification packets when each of said self-identification packets comprises error check information; and

shaping said transferred series of said self-identification packets into a packet having a frame made of data formed from an assembly of said self-identification packets each of which error check information has been erased, and said control information.

32. (New) The data transfer control method as defined in claim 30, further comprising:

appending status information to control information of the packet to indicate whether or not said self-identification packets were received during a self-identification period.

33. (New) The data transfer control method as defined in claim 30, further comprising:

writing control information of the packet into a control information area of said storage memory and data of the packet into a data area of said storage memory, said storage memory being randomly accessible and being divided into the control information area and the data area; and

appending a data pointer indicating an address of data to be written to said data area, to said control information.

34. (New) The data transfer control method as defined in claim 30, further comprising:

detecting whether or not the current period is a self-identification period, based on status information that has been sent from a lower layer;

regarding a series of packets that have been transferred in during said self-identification period as self-identification packets; and

shaping said series of said self-identification packets.

35. (New) The data transfer control method as defined in claim 30,

wherein data transfer is performed in accordance with the IEEE 1394 standard.